

Title (en)
7XXX ALLOY THICK PRODUCTS AND THEIR PROCESS OF MANUFACTURE

Title (de)
DICKE PRODUKTE AUS 7XXX-LEGIERUNGEN UND DEREN HERSTELLUNGSVERFAHREN

Title (fr)
PRODUITS EPAIS EN ALLIAGE 7XXX ET PROCEDE DE FABRICATION

Publication
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Application
EP 11808242 A 20111206

Priority
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Abstract (en)
[origin: WO2012080592A1] The present invention relates to an aluminium alloy for the manufacture of thick blocks comprising (in % by weight); Zn: 5.3 - 5.9%, Mg: 0.8 - 1.8%, Cu < 0.2%, Zr: 0.05 - 0.12%, Ti < 0.15%, Mn < 0.1%, Cr < 0.1%, Si < 0.15%, Fe < 0.20%, impurities having an individual content < 0.05% each and < 0.15% in total, the remainder being aluminium. The alloy may be used in a process comprising the steps of: (a) casting a thick block made of alloy according to the invention, (b) solution heat treating said cast block at a temperature from 500 to 560°C for 10 min to 20 hours, (c) cooling said solution heat treated block to a temperature below 100°C, (d) tempering said solution heat treated and cooled block, by heating at 120 to 170°C for 4 to 48 hours. In this process, said block does not undergo, between the casting and the tempering, a step of significant deformation by working. The alloy and the process according to the invention are of use in particular for the manufacture of a mould for injection-moulding plastics.

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Citation (examination)
WO 2008003506 A2 20080110 - ALERIS ALUMINIUM KOBLENZ GMBH [DE], et al

Cited by
FR3118632A1; US11072844B2; US10835942B2

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